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(76) Title: A NOVEL SIRNA-BASED APPROACH TO TARGET THE HIF-α FACTOR FOR GENE THERAPY

(77) Abstract: The presently disclosed subject matter provides vectors that encode small interfering RNAs (siRNAs) designed to down regulate the expression of hypoxia-inducible genes in a cell. Also provided are compositions and host cells based upon the vectors, as well as methods of using the vectors. The presently disclosed subject matter further provides a method of inhibiting tumor growth infecting cells in a tumor with an adenovirus vector that encodes an siRNA directed against the hypoxia-inducible factor I α vectors, as well as methods of using the vectors. The presently disclosed subject matter further provides a method of inhibiting tumor growth infecting cells in a tumor with an adenovirus vector that encodes an siRNA directed against the hypoxia-inducible factor 1 a (H IF-l α) gene.